

CONSTRAINTS FACED BY MILLET GROWERS IN ADOPTING INDIGENOUS TECHNICAL KNOWLEDGE (ITK) PRACTICES

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ABSTRACT

Indigenous Technical Knowledge is the sum total of knowledge and practices which are based on accumulated experience in dealing with situations and problems in various aspects of life. But the farmers have been confronting to several constraints in using the ITK practices. The present study aimed at ascertaining the constraints faced by the millet growers of Madurai district in using ITK practices. A total of 120 respondents were interviewed for the study. The study revealed that the major constraints faced by them were the preference of farmers for sophistication with reliance on readymade inputs, low returns from ITK, more time required to get the desired results from ITKs. Henry Garret ranking method was used to rank the constraints.

KEYWORDS: Indigenous Technical Knowledge, Millet growers, Constraints, Henry Garret Ranking & Madurai District

Original Article 1

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INTRODUCTION

India is an agrarian country. Agriculture is as old as human civilization. The Indigenous Technical Knowledge (ITK) system has been developed by the people based on their experiences and continuous improvement over centuries. This ITK are interwoven in the cultural life of the people. The term Indigenous Technical Knowledge (ITK) is the local knowledge which is unique to a given culture/ society inherited from their ancestors and not borrowed from another place. ITKs are social capital for poor, their main asset to invest in the struggle for survival and to achieve control of their own lives. But in recent years the ITK practices are becoming extinct because of change in natural environment, globalization of political and cultural system, etc. ITK may be old but need not be outdated. After the emergence of the green revolution, farmers are moving towards modern technologies. ITKs are in the edge of tomorrow. ITKs are cost-effective, locally available, mostly organic in nature. In this era of global warming and climate change, people are being enforced to change into organic practices; these ITKs may be a supportive component which reduces the burden of synthetic application of inorganic fertilizers which saves environment and farmer's pocket as well. Revitalizing and supporting indigenous knowledge is essential to address many of today's challenges. We are in zero hours to make people adopt ITK practices. On par with the advantages, there are some bottlenecks in following these ITK practices. Only if these constraints are identified and wiped out the results would be up to snuff. Keeping the above facts in mind, the study was taken up

with the specific objective of identifying the constraints faced by millet growers in following ITK practices.

METHODOLOGY

The study was conducted in Madurai district of TamilNadu. The district consists of 13 blocks, among 13 blocks Sedapatti and T. Kalupatti blocks were purposively selected based on highest area, production, and productivity under millet cultivation. Two villages from each block namely Ahipatti and Vitalpatti from Sedapatti block and Silaimalaipatti and Sandhaiyur were selected based on purposive sampling. A pilot survey was conducted to document the constraints in the selected villages. Constraints mean all the hinderance/ impediments faced by the millet farmers on following ITK practices. A total of 40 non-sample farmers (10 from each village) were identified on the random sampling method to document the constraints. Further modifications were carried out in the constraints and were added in the schedule. For the main survey, 120 respondents were selected (30 respondents from each village) for data collection. The respondents were put forth with constraints and asked to rank based on their importance. Henry Garret ranking method was used to rank the constraints.

Steps Involved in Henrygarret Ranking are

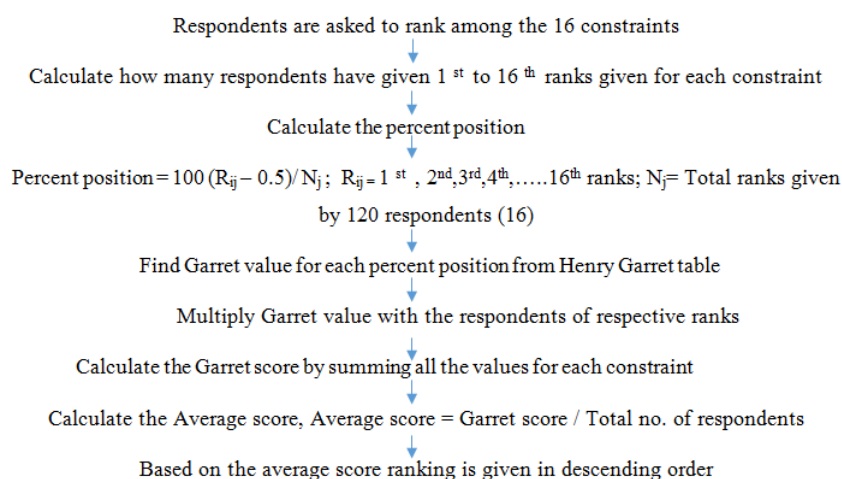


Figure 1

FINDINGS AND DISCUSSIONS

In order to maintain sustainable agriculture, we are in a situation to blend Indigenous Technical Knowledge along with our modern scientific technologies. There were certain constraints which slowed down the adoption of ITKs. If these constraints were identified and removed there would be a certain improvement in adoption of ITKs

Table 1: Constraints of the Millet Growers in Adopting ITK Practices

S. No	Constraints	Average Score	Ranking
1	An absence of financial support from Government and other agencies	41.65	XI
2	Labour intensive nature of ITKs	60.24	V
3	Preference of farmers for sophistication with reliance on readymade inputs	77.66	I
4	Lack of expert guidance/extension support for adoption of ITKs	25.67	XVI
5	More time required to get the desired results from ITKs	68.63	III

Table 1: Contd.,			
6	Lack of availability of required inputs for the adoption of ITK	36.75	XIII
7	Lack of proper and institutional information sources on ITK in agriculture	28.68	XV
8	Difficulty in the handling of bulky products	34.13	XIV
9	Lack of awareness about the significance of ITK	42.06	X
10	Lack of chance for exposure towards ITK	39.68	XII
11	Incompatibility of ITK with modern technologies	42.57	IX
12	ITK has no written document	66.17	IV
13	Many ITKs have become extinct because of non-practice by younger generation	58.10	VI
14	ITKs are inconvenient for cultivation	48.60	VIII
15	No exact quantity of plant protection measures to be used	50.05	VII
16	Low returns from ITK	70.79	II

Based on the above table 1, the major constraint faced by the millet growers where their preference for sophistication with reliance on readymade inputs. This is because in ITK practices the inputs have to be prepared earlier. Eg: dried cow dung powder. In this era of the fast moving world, it is common that farmers rely on readymade inputs due to lack of patience and preparation process of inputs. This constraint can be ameliorated by bringing changes in socio-cultural situation of the farmers.

The second and third constraints are interlinked with each other. The second major constraint was low returns from ITK followed by more time required to get desired results from ITKs. The ITK practices usually follow the principle of agroecology which involves no use of chemicals which indeed cause no harm to the soil. By using ITK practices the results may be slow but it would be sustainable. The quality of the product will be better. Farmers are more reliable on chemical inputs than organic inputs. These constraints can be reduced by increasing the price of the produce which uses which can compensate the low returns.

The fourth major constraints were the lack of written document. ITKs are transferred orally through generations which are not documented. Some of the traditional knowledge is transferred through stories, folklore, songs, rituals, etc and is being inappropriately used by farmers which loses its validity. So, the Government has to take initiative to launch the Traditional Knowledge Digital Library (TKDL) which is an Indian Knowledge Repository of traditional knowledge. (Tulsi Bhardwaj)

Labor intensive nature of ITK was felt as the fifth major constraint. ITK practices usually involve more labor for its manual operations like weeding, plant protection, etc. People these days do not prefer to be agricultural laborers. In addition to this, the wages are also been increased drastically. Steps have to be taken to change the mentality of laborers. Also, the farmers can move on to the practice which involves less labor.

Extinct of ITKs due to non-practice by younger generations has been expressed as a sixth important constraint. Younger generation usually focuses on modern technologies. This can be ameliorated by conducting workshops, training, forum insisting on the applicability and advantages of ITKs to young farmers.

The seventh major constraint reported by the millet growers was that there was no exact quantity of plant protection measures to be used. Institutions should involve in exploring and standardization of the correct quantity of plant protection measures and popularizing it among the farmers. The millet growers outlined that ITKs were inconvenient for

cultivation which was the eighth constraint faced by them. Inconvenient i.e., that they were not helpful during an emergency.

Farmers are in great pressure to use modern technologies which has immediate results. ITKs are incompatible with modern technologies. No efforts were taken on a large scale for synthesizing the ITKs with modern technologies. This constraint was ranked ninth based on average score. Since the ITKs are not being properly channelized and propagated to the farmers it is slowly losing its significance which was ranked as the tenth major constraint. Steps have to be taken to prove the importance of ITK by practically applying it in field trials etc.

An absence of financial support from the Government and other agencies occupied the eleventh rank. Government and other agencies provide subsidies for modern technologies. They fail to support ITK practices which is a great hindrance in following ITK. Providing subsidies for ITK will stimulate farmers on practicing ITKs which gives a positive impact on ITKs to farmers.

In recent days, researches are being carried out to explore ITKs. But this alone cannot overcome the constraint of lack of chance for exposure which was ranked as twelfth. This is because the source of providing knowledge on ITKs is inadequate. Further, the media and other agencies are not involved in popularizing ITKs. Livestock occupies an inevitable source of input in ITKs. But the livestock possession among the farmers is being in declining trend due to several reasons like a high cost for maintenance, an inadequate price for output (milk), etc. Lack of availability of required inputs for adopting ITKs has been ranked thirteenth. This can be overcome by providing livestock at subsidies and conducting awareness on the health and maintenance of livestock.

The other constraints like Difficulty in the handling of bulky products, Lack of proper and institutional information sources on ITK in agriculture and Lack of expert guidance/extension support for adoption of ITKs were also hindering the adoption of ITKs. The results are partially in conformity with Seeralan.S (2004), Noorjehan et.al (2005) and Sakeer Hussain (2013).

CONCLUSIONS

In the present context, input-intensive agricultural technology had led farmers to go for indiscriminate use of artificial commodities, which are non-applicable in our country economically and ecologically. In order to overcome this we are in need of reintroducing valuable ITK practices to the farmers. Farmers are more comfortable with ITKs than modern technologies. This study would help in identifying various constraints. By ameliorating the constraints we can expect a positive change in adopting the ITK practices.

REFERENCES

1. Seeralan,S (2004) *Documentation and validation of Indigenous Technical Knowledge of animal husbandry in Sivaganga district (T.N) Unpub M.Sc thesis in National Dairy Research Institute, Karnal.*
2. Noorjehan, A.K.A.H., Ravi, K.C. and Ganesan, R.2005 *Documentation of Indigenous technical practices in Garden Land Agriculture. Abstract of the National Seminar on 'Recent Trends and issues in the evolution of Appropriate Technologies for Integrated Rural Development, 4-5 March 2005, Gandhigram Rural Institute, Gandhigram.p 77*
3. Sakeer Hussain, A and Sundaramari,M. 2013 *Constraints faced by the farmers in adoption of Indigenous Horticultural practices, Journal of Extension Education, Vol.25, No.4*

4. Sakila, M. (2018). *Effect of Mutagenic Treatments of Methyl Glyoxal In Producing High Yielding Mutants in Finger Millet (Eleusinecoracana, Gaertn).*
5. Ahmed, c. I., hu, w. B., & kumar, s. (2016). *Indigenous knowledge about prediction in climate change. International Journal of Humanities and Social Science, 5, 45, 62.*
6. Tulsi Bhardwaj, Sharma, J.P. and Premlata Singh 2016*Role of Traditional Knowledge in pest management in paddy in India, Indigenous Technologies in plant protection. p 129-136*

